

GENERAL PHYSICS 1401

LECTURE: Section S70 meets TR from 5:30-6:45 PM in I128

PREREQUISITE: MATH 1316 or equivalent within the last 5 years.

TEXT: College Physics by Wilson 5th, 6th, or 7th ed.

LAB MANUAL: Physics 1401 Laboratory Experiments by Wilson.

STUDY GUIDE: To accompany text is optional

INSTRUCTOR: Dr. Mike Broyles, Office is J139 and tel: (972) 881-5882
Email: mbroyles@collin.edu Use your cougar email.
<http://iws.collin.edu/mbroyles> (use cougar email)
Text website: www.prenhall.com/wilson,
Office hrs: MWF 12 noon-1:00 PM, R 3:30-5:30 PM
or by appointment.

FALL 2010 CALENDAR

Week	Date	Lecture Topic
1		Ch 1 Units and Problem Solving
2		Ch 2 Kinematics: The Description of Motion
3		Ch 2,3 Motion in Two Dimensions
4		Ch 3,4 Force and Motion
5		Ch 4 Force and Motion
6		Ch 4,5 Work and Energy
7		Ch 5,6 Work and Energy
8		Ch 6 Momentum and Collisions
9		Ch 7 Circular Motion and Gravitation
10		Ch 8 Rotational Motion and Equilibrium
11		Ch 9 Solids and Fluids
12		Ch 10,11 Temperature and Heat
13		Ch 12 Thermodynamics
14		Ch 13 Vibrations and Waves
15		Ch 14 Sound

TESTS

Tests will count as 70% of the overall class grade.

Tests will be given in class at one-two week intervals. These exams will consist of about 20 M/C questions and 2-4 problems similar to the ones worked in class and assigned as homework. These exams will take approximately 30 minutes. The lowest score on any of these exams will be dropped in the averaging. In class exams will count as 80% of the overall test average. The Final Exam will count as 20% of the overall test average.

The Final Exam will be given in class on date of the Final Exam.

The Final Exam is scheduled for Thursday December 9th in class from 5:30-7:30 PM.

ATTENDANCE: Students are expected to attend both the lecture and laboratory

sessions. Excessive absences for either or both lecture/lab will result in formal notification.

DROP DATE: The last day to withdraw with a grade of “W” is 10/15/010. Note that a student who wishes to drop a course must initiate this process themselves by completing the proper forms. I cannot drop any student myself.

SUPPLIES: Students need to have the following items: Text books for both the lecture and laboratory, calculator with scientific programming, protractor and metric ruler, suitable graph paper, notebooks, and SCANTRON forms for the exams.

CALCULATION OF FINAL GRADE FOR THE COURSE

1. Your test scores = 70%

Keep track of your in-class test grades here: _____

Final Exam score _____

80% in-class exams + 20% Final Exam = _____

Multiply by 0.70 (70%) = _____

2. Laboratory reports and lab = 25%

I will need to contact your lab instructor at the end of the semester to factor in your lab average. Your average lab grade = _____. Multiply this by 0.25 (25%) and add to the test scores.

3. Homework assignments = 5%

All homework that is reasonably complete, worked out (not just the answers) and submitted on time. Homework problems are 1 point each. You may hand in one chapter at a time or turn in all the chapters assigned to a unit by the time you take that exam. You may turn in these problems at the next lecture following the exam that you have taken but after that time the work is considered late and will receive deductions. If we have already started grading the homework for the next unit, then it is too late to receive even late credit for the previous unit homework. I must be able to clearly read your problems (please circle your answers) and they must be in the correct numerical order for credit. You must show all of your work including formulas and calculations to receive credit for homework problems. There are usually 10 homework points per chapter, but sometimes only 5-8 problems per chapter assigned. Add your total homework points, if all problems are worked then multiply by 0.05 or 5%.

Extra credit: There will be extra credit opportunities available this semester.

Included in this category are:

1. A research paper or project. If you wish to write a research paper, you will need to cover a topic or application that fits in with the topics dealt with this semester. You may write about a physicist or scientist if he or she is mentioned in a chapter that we cover. If you select a person, then concentrate on their contributions to physics, not so much on their personal lives or trivia. You need to give the instructor a short abstract before you start the paper for approval. A research paper needs to have the following elements:

a. Title page including your name and date

b. Text of main report 6-8 pages-doubled spaced using proper footnotes

or references throughout the written text.

c. Bibliography or Works-Cited. These need to be in proper order. Do not select all of your sources from the internet, 4-6 minimum. Use proper research paper format and number all of your work-cited in the main text. If you wish to do a project, then you need to document all of your work using photos if you do not bring in the completed project. You will also need to complete a short 3-5 page paper on the project using a format similar to the research paper. The research paper or project, if accepted, will be averaged with your lowest test grade (Exams 1-4) to give a composite score. If you would rather submit a research paper in lieu of the homework then the paper will count a maximum of 5%.

The research paper or project must be submitted to me by 12/02/10 at the latest. You must submit a short abstract of your proposed work well before this date.

2. Extra credit challenge problems will on occasion be given out in class. If completed on time, each will be worth from 1-2 pts each. These points will be added to the homework category making it possible to score more than 5%. You need to get these in by the due dates for credit.
3. If you attend an approved lecture outside of class that covers a topic or application to physics, you may receive up to 10 points per lecture for 2 lectures. These points will be added to the homework category of 5%+.
4. Service Learning Project. This is a new category and you can receive extra credit for this. The maximum amount of this credit would be equal to the research paper or project and will depend upon a contract that you work out with the Service Learning Department and the physics instructor. The Service Learning would be a substitute for the research paper or project-you would not receive credit for both categories. Tutoring students in science or math would be a possibility for this category

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ANY ADDITIONAL EXTRA CREDIT WORK MUST BE TURNED IN BY 12/02/10 TO ME PERSONALLY. DO NOT PLACE ASSIGNMENTS UNDER MY OFFICE DOOR

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LATE WORK: PLEASE NOTE THAT ALL LATE WORK IS SUBJECT TO PENALTY DEDUCTIONS. TESTS NOT TAKEN ON TIME ARE SUBJECT TO A MINIMUM 10% DEDUCTION. ONLY THE LAST HOMEWORK FOR WILL BE ACCEPTED DURING FINAL EXAM WEEK. NO PROJECTS OR EXTRA CREDIT WILL BE ACCEPTED AFTER THE DUE DATES.

CHECK WITH ME BEFORE THE END OF THE SEMESTER TO MAKE SURE THAT ALL OF YOUR WORK IS ACCOUNTED FOR. IT WOULD BE A GOOD IDEA TO MAKE COPIES OF EVERYTHING THAT YOU SUBMIT FOR GRADING.

GRADING SCALE

90.0 and above = A

80.0 and above = B

70.0 and above = C

60.0 and above = D

Below 60.0 is not passing

If you experience problems early in the course, please consult the instructor. We can help you in a number of ways. I might suggest working in the Math Lab with a physics tutor. We might be able to find you a private tutor. I might suggest just dropping by my office a few times or seeing me in the Math Lab. Don't get behind, this semester physics course moves swiftly and builds on previous math and physics concepts. You can do this course if you apply yourself!

Note: This class like all others at CC may be repeated only once. Students are limited to a maximum of 6 withdrawals during their academic career.

Academic Ethics: This course like all others at CC will follow the guidelines for academic ethics. We will not accept any work from students that show evidence of copying from another student or material that has a copyright. This applies not only to exams, but also to lab reports and homework assignments.

PLEASE TURN OFF YOUR CELL PHONES WHEN YOU ENTER THIS CLASSROOM. IF YOU ARE EXPECTING AN EMERGENCY CHECK WITH THE INSTRUCTOR BEFORE CLASS.

IMPORTANT DATES TO REMEMBER

August 23rd, 2010. 1st day of classes.

Monday September 6th, 2010 Labor Day no classes.

Friday September 17th classes at SCC close at 3:00 PM for Balloon Festival

Friday October 15, 2010. Last day to withdraw from a course with a "W" grade.

November 24-28, 2010 no classes due to the Thanksgiving Holiday.

Fall Final Exam Week 12/06-12/12/10.